

Appl. No. 09/511,955
Amdt. dated April 5, 2004
Reply to Office action mailed January 5, 2004

REMARKS / ARGUMENTS

A. INTRODUCTION

In the office action dated January 5, 2004:

claims 1, 2, 5, 6, 9-14, and 15 were rejected under 35 U.S.C. § 103 based on U.S. patent no. 6,233,232 to Chau *et al.* (hereafter "Chau");

claim 10 was objected to because of informalities;

claim 12 and 13 were rejected under 35 U.S.C. § 112; and

claims 1, 2, 5, 6, 9-14, and 15 were rejected under 35 U.S.C. § 102 in view of U.S. patent no. 5,550,816 to Hardwick *et al.* (hereafter "Hardwick");

B. REJECTION UNDER 35 U.S.C. § 103 BASED ON CHAU

Applicant submits that all pending claims of the present application are patently distinguishable with respect to Chau because Chau fails to disclose one or more limitations taught and claimed in the several embodiments of the present invention. Claim 1 recites, in relevant part, that: "means for dynamically bonding the identified protocol to a port, the dynamic bonding allowing the port to transmit packets according to a first protocol during a first communication session and according to a second protocol during a second communication session." An individual physical port is therefore adapted to individually bond to each of a plurality of different layer two protocols associated with various connection requests on a session-by-session basis.

In contrast to the present invention, Chau discloses a *network access server* with a plurality of "levels," including a second level with a PPP component, a SLIP component, and a connection manager (col. 8, lines 15-23; FIG. 4). While Applicant agrees that the network access server supports a plurality of layer two protocols, Applicant respectfully asserts that Chau fails to disclose any one *physical port* that is adapted to receive connections requests having different protocols, and then dynamically bond the appropriate protocol to the port, the substance of which is set forth in claim 1. In fact, Chau suggests that each physical port is associated with a *single* layer two protocol. In FIG. 9 and the associated text, for example, Chau depicts a physical port whose only layer two support is a PPP table 930 for tracking PPP connections. Conspicuously

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missing from the physical port description is any support for SLIP connections or support for the connection management component. Chau therefore fails to disclose or teach the present invention.

In the absence of multi-layer-two protocol ports, Chau also fails to disclose a system for “*dynamically bonding* the identified protocol to a port” between successive sessions, as is claimed in claim 1. Although Examiner correctly notes that Chau *allocates* logical ports and physical ports during system initialization (col. 9, lines 60-66), Chau fails to disclose that the layer two protocol associated with a physical port *changes* from initialization-to-initialization. Applicant is unaware of anything in Chau indicating that the logical and physical ports are allocated differently between initializations. Chau therefore fails to disclose or teach the present invention which is adapted to dynamically bond one of a plurality of protocols on a session-by-session basis.

Applicant also respectfully disagrees with Examiner’s statement of a motivation to modify that “it would have been obvious to someone skilled in the art ... to select a second protocol” “... when bonding a physical port to a logical port ...” (office action, page 5, lines 1-5). Assuming *arguendo* that Chau changes the layer two protocol associated with a physical port, Chau “selects” the protocol at *initialization, not when bonding* a physical port to a logical port. The layer two protocol selected at initialization would necessarily constitute the “first protocol” as recited in claim 1. Since the physical port is not adapted to bond to more than an individual layer two protocol, however, Chau cannot proceed to select a “second protocol” for the port, as is recited in claim 1. Therefore, the invention of the present application is neither anticipated by or obvious in view of Chau.

C. REJECTION UNDER 35 U.S.C. § 102 BASED ON HARDWICK

Applicant submits that all pending claims of the present application are patently distinguishable with respect to Hardwick because Hardwick fails to disclose one or more limitations taught and claimed in the several embodiments of the present invention. Like Chau, Hardwick fails to disclose a *single data communication switch* having a *port* adapted to identify packets with

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different layer two protocols and to bind the appropriate protocol to the port for each communication session.

In contrast to the present invention, Hardwick teaches a single physical switch with various virtual routers, wherein some of the virtual routers are coupled to a plurality of data interfaces 114, 116 and each of the data interfaces is dedicated to a different protocol. In particular, Hardwick states:

"The physical switching device 150 preferably is designed to accommodate data interfaces of differing types such that the set of data interfaces assigned to a virtual switch 152 may include a first data interface 114 which manipulates a protocol data unit having a different protocol type from a second data interface 116 such that protocol data units of different protocol types can be switched within a single virtual switch 152. The different protocol data unit protocol types may differ by having differing OSI physical layer media types, differing OSI link layer signaling protocols, and/or differing OSI network layer protocols."
(col. 23, lines 48-59; and FIG. 2)

Clearly, a virtual router in Hardwick must be coupled to multiple protocol-specific data interfaces in order to support multiple protocols, which the present invention is able to do with a single port. Hardwick, therefore, fails to anticipate the present invention and actually teaches away from the present invention.

D. OBJECTION TO CLAIM 10

Claim 10 has been amended to include the reference to "layer two protocol."

E. OBJECTIONS TO CLAIMS 12 AND 13

Applicant has amended claims 12 and 14 to reference the "identified communication protocol" to addresses the indefiniteness issues raised by Examiner with respect to claims 12 and 13.

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F. CONCLUSION

For all the forgoing reasons, Applicant submits that the present invention is patentably distinguishable from Chau and Hardwick either alone or in combination. Accordingly, Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Pursuant to 35 U.S.C. 132 and 37 CFR 1.121, Applicant has exercised care to avoid the introduction of new matter. Should there be any fees for this action, your office is authorized to draw from the firm deposit account number 02-3979. Should you have any questions, or identify any problem, I would appreciate a telephone call so that this matter may be resolved promptly.

Respectfully submitted,

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